

F1201R






Fixed Frequency, Remote Mounted, L-band to IF DownConverter



The **F1201R** is a remote mounted version of the popular Peak F1201 fixed frequency, fixed gain L-Band DownConverter which provides a low-cost solution for systems requiring conversion between L-Band and $70\text{MHz} \pm 20\text{MHz}$ (or $140\text{MHz} \pm 40\text{MHz}$). The unit is popular for interfacing L-Band modems with 70/140MHz transceivers or 70/140MHz modems to L-band transceivers.

The standard **F1201R** L-band frequency is fixed at 1200MHz, for different frequencies please contact the factory.

Peak Features

-  Compliant with IESS306 and IESS309 requirements.
-  Used for 8PSK and 16QAM modulations in excess of 50Mbits/sec.
-  Available in 1+1 and 2+1 redundancy configurations
-  Aux DC and 10MHz reference outputs for Block Converters
-  Compact, rugged, weatherproof design



F1201R – Typical Specification

L-Band Input

Frequency	1200 ±18MHz fixed (Option 1a; ±36MHz). For other frequencies please contact the factory.
Connection	50Ω, N-type (f)

IF Output

Frequency	70 ±18MHz (Option 1b; 140 ±36MHz)
Connection	50Ω, N-Type (f) (Option 3b; 75Ω)

Transfer Characteristics

Conversion gain	Zero
1dB GPC	0dBm
Gain flatness	±0.5dB across 40MHz

RF Performance

Phase noise	-80dBc/Hz at 100Hz -90dBc/Hz at 1kHz -95dBc/Hz at 10kHz -100dBc/Hz at 100kHz -120dBc/Hz at 1MHz
Spurious	<-60dBm (in band, non-carrier related) <-60dBc (in band, carrier related)
Group delay	Linear 0.025nS Ripple 1nS p-p Parabolic 0.015nS/MHz ²

External Reference Input

Frequency	Factory selectable 5 or 10MHz
Connector	50Ω, TNC
Level	0dBm ±3dB

Internal Reference

Frequency	10MHz
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Stability

Stability	<5 x 10 ⁻¹⁰ over 1s, <5 x 10 ⁻⁹ per day
Ageing	<5 x 10 ⁻⁷ per year
Temp. stability	<5 x 10 ⁻⁸ over 0 to 50°C

Mechanical

Width	123mm (4.85")
Height	172mm (6.8"), plus connections & mounting flanges
Depth	56mm (2.2")
Construction	Diecast Aluminium, IP66 rated
Weight	1.5kgs (9lbs) approx.

Environmental

Operating temp.	-10°C to +50°C (less Solar gain)
EMC	EN55022 part B & EN50082-1
Safety	EN60950

Power supply

Voltage	36VDC
Power	35 Watts max.
Connection	5-pin circular weatherproof (mating part supplied)

Control System

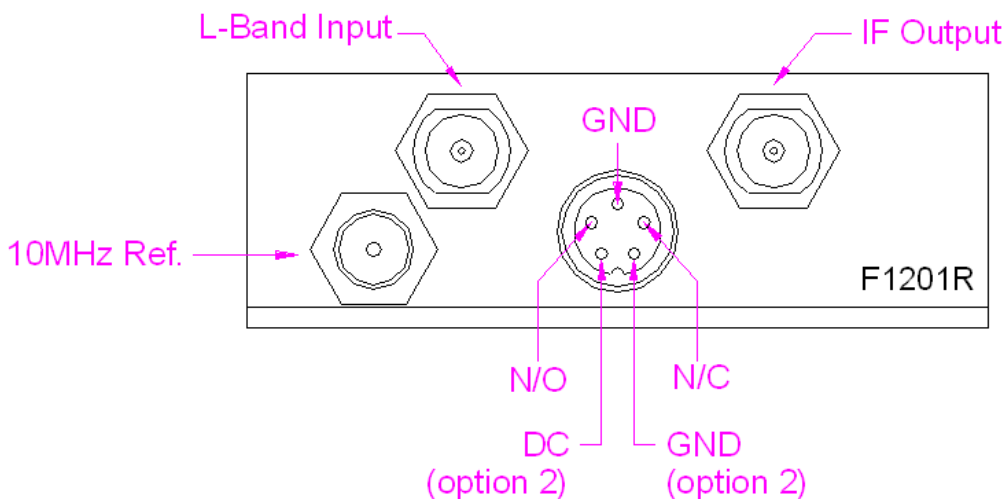
Alarms	Summary failure relay (form C)
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Options

- 1b) 140MHz IF Output.
- 3b) 75Ω IF Output.

Notes; Other 'F1200 series' options do not apply to these products. The addition of Options can modify the typical specification, for details please consult the factory.

Connector Panel View



Peak Communications reserves the right to alter the specifications of this equipment without prior notice. F1201R-230511.

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